Recovery Plan Action Status

Plan Name: Louisiana Quillwort

Plan Status: Final Plan Date: 30-Sep-96 Lead Agency: USFWS

Lead Office; Mississippi Ecological Services Field Office 965-4900)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Louisiana quillwort (Isoetes Iouisianensis)	1	1	Protect populations on federal lands	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Other parties, U.S. Forest Service, U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 4	Acquisition: Exchange, Acquisition: Management Agreement, Management: Land Use, Management: Planning, Other: Information and Education, Other: Law Enforcement, Other: Regulations	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	
Louisiana quillwort (Isoetes Iouisianensis)	3	10	Public information efforts	Partially Complete	Prior to FY 1995		U.S. Forest Service, The Nature Conservancy, Louisiana Department of Wildlife and Fisheries , U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 4, Louisiana Natural Heritage Program, Louisiana Department of Wildlife and Fisheries, Louisiana Department of Agriculture and Forestry	Other: Information and Education	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	Mercer Arboretum and Botanic Garden, TX is maintaining a live plant display as an educational outreach to the public.

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Louisiana quillwort (Isoetes Iouisianensis)	1	2	Protect populations on private lands	Partially Complete	Prior to FY 1995		The Nature Conservancy, Louisiana Department of Wildlife and Fisheries , U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 4, Louisiana Natural Heritage Program, Louisiana Department of Wildlife and Fisheries	Acquisition: Easement, Acquisition: Exchange, Acquisition: Fee Title, Acquisition: General, Acquisition: Lease, Acquisition: Management Agreement	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	In partnership with TNC and the Service, one population on private property has been protected in LA during a previous FY.
Louisiana quillwort (Isoetes Iouisianensis)	1	3	Enforce State laws protecting environmental quality	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Division of Environmental Quality, Louisiana Department of Wildlife and Fisheries, U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 4, Louisiana Natural Heritage Program, Louisiana Department of Wildlife and Fisheries	Other: Law Enforcement, Other: Regulations	Internal Administrative, Internal Field Assistance, Internal Technical Assistance	
Louisiana quillwort (Isoetes Iouisianensis)	1	4	Enforce Federal law protecting Louisiana quillwort on private land	Ongoing Current	Prior to FY 1995		U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, Habitat Conservation Program, U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 4, U.S. Department of Agriculture, Natural Resources Conservation Department	Enforcement,	Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert	

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Louisiana quillwort (Isoetes Iouisianensis)	1	5	Develop management guidelines	Partially Complete	Prior to FY 1995	FY 2013	U.S. Forest Service, The Nature Conservancy, Louisiana Department of Wildlife and Fisheries , U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 4, Louisiana Natural Heritage Program, Louisiana Department of Wildlife and Fisheries	Management: General, Management: Habitat Maintenance and Manipulation, Management: Land Use, Management: Planning	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	
Louisiana quillwort (Isoetes Iouisianensis)	2	6	Conduct biosystematic research on the species	Partially Complete	FY 1995 - FY 1999	FY 2016	Other parties, U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 4, Louisiana Natural Heritage Program, Louisiana Department of Wildlife and Fisheries	Research: Genetics	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	Genetic studies were completed in 1999 and 2004; however, additional genetic studies are indicated.
Louisiana quillwort (Isoetes Iouisianensis)	2	7	Monitor populations to learn more about the life history; monitor trends	Ongoing Current	FY 1995 - FY 1999		Other parties, U.S. Forest Service, The Nature Conservancy, Louisiana Department of Wildlife and Fisheries , U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 4, Louisiana Natural Heritage Program, Louisiana Department of Wildlife and Fisheries	Research: General, Research: Other Information	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	Monitoring of some populations within the De Soto NF in MS by USFS and TNC personnel is ongoing. No known monitoring programs exist elsewhere in MS or in either LA or AL. Monitoring of these populations is needed.

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Louisiana quillwort (Isoetes Iouisianensis)	2	8	Search for additional populations	Partially Complete	Prior to FY 1995		U.S. Forest Service, U.S. Army Corps of Engineers, Alabama Natural Heritage Program, U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 4, Louisiana Natural Heritage Program, Louisiana Department of Wildlife and Fisheries, Mississippi Natural Heritage Program, Mississippi Natural Heritage Program, Mississippi Department of Wildlife, Fisheries, & Parks, U.S. Department of Agriculture, Natural Resources Conservation Department	Research: Population Surveys	Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	
Louisiana quillwort (Isoetes Iouisianensis)	3	9	Preserve genetic stock	Partially Complete	FY 1995 - FY 1999		Other parties, Center for Plant Conservation, U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 4	Research: Genetics	Student, Internal Administrative, Internal Field	Live plants are being reared at Mercer Arboretum and Botanical Garden, TX in cooperation with CPC's National Collection of Endangered Plants.